

A Case Study of an Intermediary Bringing together American Designers and European Producers in the Soft Furnishing Trade

Electronic Business Patterns for Business Networks and Interfaces

Erwin Fielt, Edward Faber, Wil Janssen

Telematica Instituut, The Netherlands

erwin.fielt@telin.nl

edward.faber@telin.nl

wil.janssen@telin.nl

Abstract

Electronic business initiatives involve the coordinated activities of enterprises forming business networks. These enterprises interact via their business-to-business interfaces. In this paper we discuss the role and characteristics of business-to-business interfaces in business networks. The focus is on the description and analysis of the SoftFurnishing case. SoftFurnishing offers a web purchasing service for interior fabrics via a managed marketplace. The SoftFurnishing case was used for the exploration of the conceptual framework, especially the interface concept. The case analysis resulted in some observations about strategic and operational design choices. Finally, we have observed some matches and mismatches between design choices on the strategic and operational level.

1 Introduction

In today's economy many electronic business initiatives involve the coordinated activities of interdependent enterprises. These interdependent enterprises form a business network, where the actors (organizations and individuals), activities and resources are connected to each other. Enterprises are forced to be excellent and adaptive due to increasing competition and dynamics. This means focusing on those critical activities in which you are the best and leverage the capabilities of other enterprises for other activities. Moreover, enterprises have to respond quickly to changes, both internally and as a network. This means also changing the interactions and relationships and/or actors in the business network. To function in such a networked setting enterprises need

networkability: the ability to establish, maintain, develop and dissolve business relationships rapidly and flexibly [Alt/Fleisch/Österle 2000]

We assume that for networkability an important factor is how enterprises arrange their interfaces with other enterprises and that interface characteristics are affected by the business interaction and relationship characteristics. The research problem is “How can organizations deal with coordination in a business network under pressure of cooperation and competition, and what does this imply for the business-to-business interface?” The research results in design guidelines and principles for the interface in the form of design patterns.

The notion of business-to-business interface is used to refer to the common boundary of two (or more) organizations enabling interactions between enterprises. The application of ICT offers opportunities to automate and transform the interface. The application of ICT should be assessed in the context of business relationships rather than as a technical issue (Cunningham et al., 1993). Therefore the research has a holistic view on the interface by paying attention to strategic, organizational, and ICT aspects.

In this paper we focus on the description and analysis of the SoftFurnishing case. SoftFurnishing¹ offers a web purchasing service for interior fabrics via a managed marketplace. The SoftFurnishing case was used for the exploration of the conceptual framework, especially the interface concept. In the end, this should lead to design guidelines and principles for the business-to-business interface. For now, however, this is beyond the scope of this paper. The rest of this paper is organised as follows. In section 2 we describe the research method and conceptual framework. Thereafter, in section 3 the SoftFurnishing case is described. In the analysis of SoftFurnishing (section 4) we identify design choices that are typical in this setting, on how the interface supports the value propositions and services in the network. We end with some concluding remarks, both on the case as well as next steps in research.

2 Research approach

2.1 Research method

We conducted a pilot case study to explore the conceptual framework for the case description and analyses. The case study concerns a business network in the soft furnishing industry consisting of three types of actors: interior designers, managed marketplace (SoftFurnishing), and fabrics producers. The focal actor is SoftFurnishing. SoftFurnishing offers a web purchasing service that brings together American designers and European producers. For now, we focus on the description and analysis of SoftFurnishing using our conceptual framework.

The fact that the focal actor is an intermediary makes the case very interesting because one can expect that especially for intermediaries networkability is of great importance. Moreover, one of the most debated topics in electronic business is the role and function of wholesalers, distributors and other intermediaries. There is a long discussion about intermediation, disintermediation, and reintermediation (Chircu & Kauffman,

¹ Names of companies and organisations in this paper have been altered to protect their identities.

2000). Distributors are at the forefront of the changes by virtue of being in the middle and operating in thin margins. Information technologies, such as the web, make disintermediation of existing channels a serious threat; at the same time, they provide an opportunity for some distributors to succeed in reinventing their value logic (El Sawy, Malhotra, Gosain, & Young, 1999).

The research method consists of the following, five steps: (1) collecting information about the case, (2) describing the case with the help of the conceptual framework, (3) analysing the case to identify design choices, (4) specify design patterns, and (5) reflection upon the design patterns. In this paper the emphasis is on the steps 2 and 3.

We used several sources of information including interviews with various people (project manager, business development manager, and logistics manager), internal and external presentations, business and IT design documents, press maps, trade articles, etc. We also explored the website by using a guest account. All information comes from the focal actor SoftFurnishing. This means the case description is based upon the viewpoint of SoftFurnishing.

2.2 Conceptual framework

To describe and analyze the case the concepts and their relations are made explicit in the conceptual framework. This framework is founded on the interaction and network perspectives in industrial marketing and purchasing research (Axelsson & Easton, 1992; Håkansson, 1982; Håkansson & Snehota, 1995). The conceptual framework (Figure 1) is based upon the following line of reasoning. A vertical business network refers to actors (organizational entities) and their buyer-seller exchanges. An actor is an organizational entity and consists of activities, resources, and people. The role of the buyer-seller exchange is to coordinate the activities, resources, and people of one actor with the activities, resources, and people of another actor. Buyer-seller exchanges consist of interactions and relationships. Interactions represent the here and now of the inter-organizational behavior and constitute the dynamic aspects of relationships. Relationships are shaped by interactions and form the context in which interactions take place.

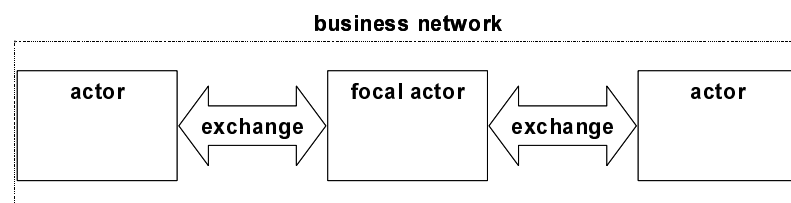


Figure 1: Basic concepts: Business network, actor and exchange.

Interactions take place via the interface. We define the **business-to-business interface** as the organisation of common boundary of two (or more) actors enabling interac-

tions². The interface consists of (1) **channels** (means for interaction) where two (or more) actors can interact and (2) the **arrangements** (agreement or understanding) for the usage of the channels and interactions.

In this research we approach the business network and interface from three different perspectives. For all three perspectives we start from the same conceptual framework (Figure 1), that, however, is specialized depending upon the nature of the perspective. The three perspectives are:

- (1) Strategic perspective: We approach the business network as a value network and the interface as place for the transfer of value. A value network consists of actors, value propositions and value activities (Porter, 2001; Stabell & Fjeldstad, 1998).
- (2) Operational perspective: We approach the business network as a service network and the interface as place to collaborate and communicate. We emphasize services and business processes between actors.
- (3) ICT perspective: We approach the interface as a place to mediate, support or automate services and business processes between actors by computer network technologies. Applications, application integration, and communication channels are primary elements.

For now, we focus on the strategic and operational perspective. The ICT perspective is not described separately but we refer to ICT issues in the strategic and operational perspective. For a full discussion of the conceptual framework we refer to Fielt (2002a).

3 Case description

In this section we describe the SoftFurnishing case. The description is focused on the primary activities related to demand and supply. We start with the business idea that was the starting point for SoftFurnishing and a basic description of the business network. Thereafter we zoom in on the strategic and operational perspectives by means of the value and service network. We limited ourselves to a high-level description with some examples about the details. A more detailed account of the case can be found in Fielt (2002b).

3.1 Business idea

The parent company of SoftFurnishing wanted to introduce electronic business for major improvements in the distribution channels of fragmented and inefficient markets. The opportunities were not found in the traditional markets of the parent company but in the adjoining market of soft furnishing. The parent company decided for a greenfield operation and started an e-business enterprise (SoftFurnishing.com) that offers a web purchasing service which enables the soft furnishing trade to source decorative fabrics at competitive rates, quickly and effectively, from a global network of leading produc-

² Merriam-Webster (2001) describes interface as (1) a surface forming a common boundary of two bodies, spaces, or phases <an oil-water interface>, (2a) the place at which independent and often unrelated systems meet and act on or communicate with each other <the man-machine interface>, and (2b) the means by which interaction or communication is achieved at an interface.

ers. The first version of SoftFurnishing (interior fabrics) has been implemented and is fully operational.

The parent company choose for interior fabrics because of the following attractive characteristics: (1) product: homogenous, intermediary good, and easy to ship, (2) market: global, fragmented (both demand and supply side), and inefficient, and (3) strategic: key design product, and valuable database. In America there are long chains between producers and customers that pushes up the prices and causes delays. Structural costs can be removed by reducing the actors involved and the activities performed.

3.2 Business network

The starting point for the business network of SoftFurnishing (Figure 2) is the “vertical triad”, i.e. the vertical business network consisting of three types of actors: interior designers, SoftFurnishing (intermediary), and fabrics producers, and their buyer-seller exchanges. SoftFurnishing is considered to be the focal actor.

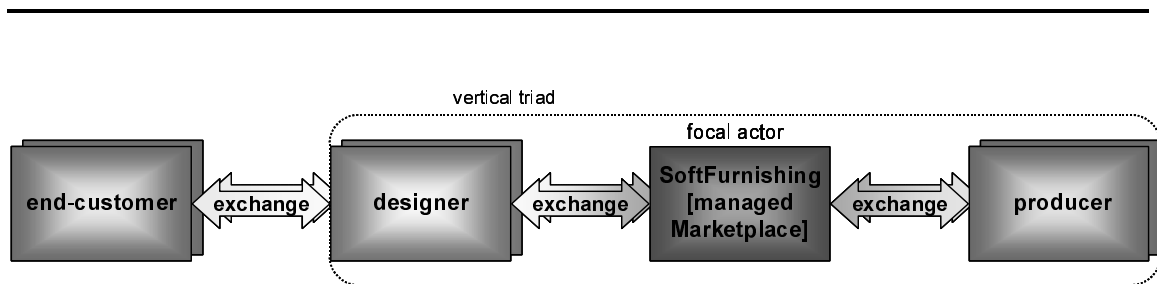


Figure 2: SoftFurnishing business network, actors and exchanges.

On the demand side the network scope is restricted to the end-customers (the customers of the designers) in the marketplace. While there is no direct involvement of the end-customers in the marketplace they do play a part in it. For example, the marketplace supports the communication between the designer and end-customer. On the supply side the network scope is restricted to the producers. There was no indication that the suppliers of the producers play a part in the marketplace.

The actors in the business network are:

- End-customer: The end-customer is the end-consumer of home interior design products. The end-customer is a customer of the interior designer.
- Designer: An interior designer is professionally trained to create a functional and quality interior environment. SoftFurnishing aims for interior designers who are a design professional (professional dealer or home decorator) active in the high-end of the home interior design market and member of the trade.
- SoftFurnishing: SoftFurnishing offers a web purchasing service for interior fabrics. SoftFurnishing acts as an intermediary that operates a managed marketplace.
- Producer: A producer that designs and manufactures soft furnishing products. SoftFurnishing aims for producers of exclusive, high-end interior fabrics.

- The buyer-seller exchanges are:
- End-customer-designer: The designer creates an interior environment for the end-customer.
- Designer-SoftFurnishing: The designer can buy interior fabrics from SoftFurnishing.
- SoftFurnishing-producer: The producer can sell interior fabrics via SoftFurnishing.

SoftFurnishing describes its role in the business network as a managed marketplace. The *managed marketplace* is an intermediary that is a mix between a (electronic) marketplace and wholesaler. SoftFurnishing positions this role by means of a number of topics, which are presented in Table 1. There is no direct exchange between the designer and wholesaler; the designer does not know the producer and vice versa. In this sense it is not a transparent marketplace. This configuration means that SoftFurnishing occupies a central position in the business network.

SoftFurnishing makes use of multiple channels to interact with the designers. The website (designer view) is the main channel for the conclusion of transactions while the fulfillment is taken care of by a delivery channel for packages. Next to these channels there is a customer support and order desk that can be approached by phone, fax or e-mail. SoftFurnishing also makes use of sales agents (to introduce the designers to the purchasing service) and organizes events. For the interaction with the producers also multiple channels are used: supplier relationship managers, supplier desk, website (producer view), delivery (for replenishment), and EDI connection.

Table 1: Managed marketplace: A mix between (electronic) marketplace and wholesaler.

| topic | marketplace | wholesaler |
|--------------------|------------------------|---------------------------------|
| Pricing policy: | ▶ by producer | by wholesaler |
| Relationship: | producer - customer | ▶ wholesaler – customer |
| Web site: | producer specific site | ▶ wholesaler site |
| Catalogue: | different catalogues | ▶ one catalogue |
| Order process: | no combined orders | ▶ combined orders |
| Payments: | customer to producer | ▶ customer to wholesaler |
| Profit generation: | ▶ fees (operationally) | ▶ margin (legally) ³ |
| Ownership stock: | ▶ no ownership | ownership |
| Returns & claims: | no responsibility | ▶ responsibility |
| Care desk: | by producer | ▶ by wholesaler |
| Marketing: | by producer | ▶ by wholesaler |

³ The producer sets the producer price to SoftFurnishing (principal concept) instead of setting the designer list price (agent concept). The producer is provided with insight in the margin, duties and operational charge calculations by means of a 'Margin Calculator'(full transparency).

The formal arrangements between and the SoftFurnishing and the designer are laid down by SoftFurnishing and made explicit via standard policy statements and terms and conditions. For example, about order changes or cancellations the policy states that SoftFurnishing's system processes orders immediately upon submission and therefore SoftFurnishing cannot change or cancel an order once it has been placed. Next to the formal arrangements there is the desire of SoftFurnishing to be perceived as a reliable and trusted service.

The arrangements between SoftFurnishing and the producer are laid down in a contract that is the result of negotiations between SoftFurnishing and producer. These contracts go towards a detailed level and cover many topics. For example, how producers supply the fabrics (on consignment), that producers provide sample material, what the price system entail, how claim and returns are handled, who pays for the costs of producing photos, etc.

3.3 Strategic perspective

From a strategic perspective the focus is on the *value network*: the value activities of the actors and the value propositions of the exchanges. Here, we restrict the scope of the value network to the value propositions and activities involving SoftFurnishing (Figure 3).



Figure 3: SoftFurnishing value network, actors, value activities and value propositions.

In the following section (3.3.1) we first examine the value activities. Thereafter, we go more deeply into the value propositions (section 3.3.2).

3.3.1 Actors and value activities

We decompose the activities of SoftFurnishing into strategically important value activities to understand the scope of the value activities and their value creation logic. The following value activities can be distinguished:

- Marketplace: Activities associated with the buying and selling of products (in a broad sense, including project support, visualization, samples etc.).
- Logistics: Activities associated with receiving, storing, and physically distributing the products.
- Network management: Activities associated with the acquisition and management of service providers and the planning and control of networked business processes.
- Marketing and sales: Activities associated with the acquisition and retention of designers and the support for designers buying products.

- Producer relationship management: Activities associated with the acquisition and retention of producers and the support for producers selling products.
- Business development: Activities associated with new projects that broaden the business scope.

The mediating role (marketplace) and operational capability (logistics) are the core of the added value of a managed marketplace like SoftFurnishing. Having and protecting the relationships with designers and producers is the critical success factor. SoftFurnishing wants to offer a high-quality (speed, selection, reliability, convenience, and responsibility) and cost-efficient service. This is incorporated in the value activities and their linkages.

3.3.2 Value propositions

The value propositions between designer, SoftFurnishing, and producer are described in Table 2. Due to the central position of SoftFurnishing all value propositions are with SoftFurnishing. The value propositions of designer and producer towards each other run along SoftFurnishing.

We elaborate the value proposition of SoftFurnishing towards the designer:

- Better price through competing suppliers: The designer is able to compare the fabrics of different suppliers at different prices.
- Wide high-end European product range: Top European fabrics are available on the US market.
- Latest products are immediately available: Because of the online concept products are immediately available world-wide.
- Single trusted supplier: The designer is a direct customer with SoftFurnishing and therefore has one single credit line.
- Smart product search logic: A sophisticated search engine to help the designer find the fabrics.
- Personalized product selection & market trend information: Through SoftFurnishing the different designers are informed on certain market information and trends on a personalized basis.
- On-line tracking & tracing of orders: By using tracking and tracing tools of the carrier, the SoftFurnishing can provide this to the designer.
- Marketing tool towards end customers: SoftFurnishing is a way to market the fabrics to the end customer. The designer can provide the end-customer with up to date figures on lead times, prices etc.

Table 2: Value propositions in the value network of SoftFurnishing.

| designer → Soft-Furnishing | SoftFurnishing → designer | SoftFurnishing → producer | producer → Soft-Furnishing |
|-------------------------------------|---|---|------------------------------|
| revenue | competitive price | expanded market reach (new sales channel) | high-end European products |
| detailed product/market information | wide, high-end European product range | direct control over pricing towards designers | exclusive products |
| preferred fabrics supplier | latest products immediately available | very fast time to market | inventory on consignment |
| need for related products | single trusted supplier | sell through a trusted supplier in the USA | vendor managed inventory |
| | smart product search logic | better margins | exclusive e-commerce channel |
| | personalized product selection & market trend information | world wide supply chain | |
| | on-line tracking and tracing of orders | detailed product/market sales information | |
| | marketing tool towards end-customers | customer care, claims, and returns handled | |

3.3.3 Interface

The web is used by SoftFurnishing as a new channel. The web channel offers SoftFurnishing the opportunity to innovate the distribution channel in the interior fabrics market and remove structural costs. Via the web SoftFurnishing offers a high-quality and cost-efficient service. However, it is the totality of channels and how they complement each other that enable this kind of service and the accompanying value propositions.

A strategic choice of SoftFurnishing is to have no direct contact between designers and producers. This means there is no interface between designer and producer. This implies that the full interface between producers and designers should be supported by SoftFurnishing and should be sufficient to support the value propositions.

The strategic arrangements follow from the role of SoftFurnishing and the division of responsibilities over the actors. These are presented in Table 1. In addition, everything is branded as “SoftFurnishing”.

3.4 Operational perspective

3.4.1 Service network and actors

From an operational perspective the focus is on the service network: the services provided and used by the actors (Figure 4).

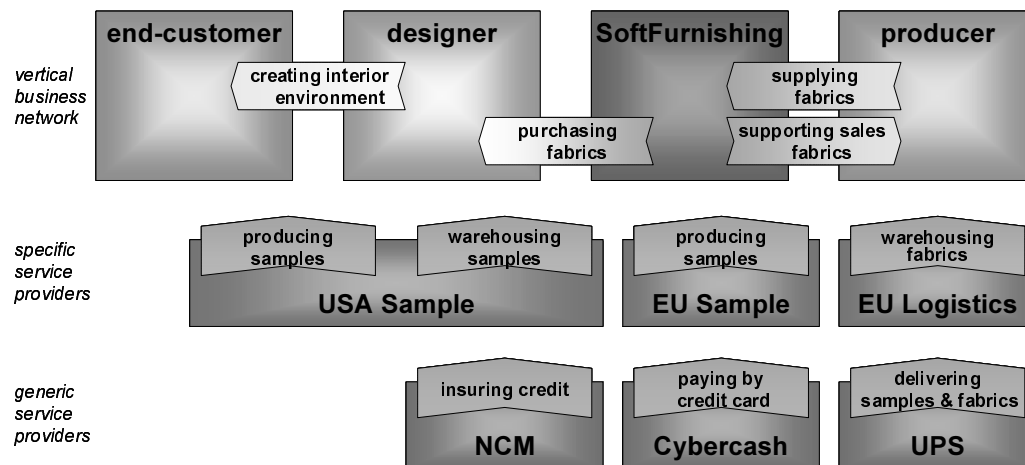


Figure 4: Service network.

The starting point for the service network is the business network (see also section 3.1). As opposed to the value network the end-customers are within the scope of the service network because they play a part in the business services and processes. These actors and their services are presented in the vertical business network in Figure 4.

The vertical business network makes use of other actors to execute specific supporting services for the vertical business network. These actors are presented as the specific services providers in Figure 4. The actors that provide the specific supporting services and their main activities are:

- **EU Logistics:** An European organization that acts as logistic service provider. The activities that EU Logistics in the SoftFurnishing network performs is the management of the warehouse and the coupage of ordered fabrics for interior fabrics on consignment.
- **EU Sample:** An European organization that acts as sample producer. The activity that EU Sample in the SoftFurnishing network performs is the production of samples.
- **USA Sample:** An American organization that acts as sample producer and sample warehouse. The activities that USA Samples in the SoftFurnishing network performs are the production of samples and the management of the warehouse for interior fabrics samples.
- These actors are viewed as part of the business network because they perform some critical activities that SoftFurnishing has outsourced. With these actors there is a kind of partnership:
- These actors have been early involved in the start-up of SoftFurnishing thinking along with SoftFurnishing from their expertise.
- These actors have made investments for this electronic business initiative and run part of the business risk. They can profit from this if SoftFurnishing becomes a success but will loose if SoftFurnishing fails.

- At these actors there are specific activities (e.g. coupage), people (e.g. training), and resources (e.g. fabrics storage, electronic data interchange (EDI) connection) for SoftFurnishing.

SoftFurnishing also makes use of other actors for more generic supporting services. These actors are presented as the generic services providers in Figure 4. There are more actors involved but these are viewed as part of the environment of the business network providing the business infrastructure that is shared by many other actors and business networks. Examples of actors that are viewed as part of the business infrastructure are Pantone (textile color system and products), frequent-flyer program, banks, credit card companies, etc.

From the strategic perspective we stated that the role of SoftFurnishing is a managed marketplace. From the operational perspective we see SoftFurnishing also has the role of network orchestrator because SoftFurnishing makes use of other actors to execute (steps of) the business processes. There have to be arrangements with all these different actors and the (steps of) the business processes that are executed at different actors have to be geared towards each other. Again this configuration means SoftFurnishing occupies a central position in the business network.

3.4.2 Service elements and interactions

The services in the service network consists of one or more service elements. In figure 5 the service elements of the *purchasing service* and the *supporting sales service* of SoftFurnishing (service provider) are presented.

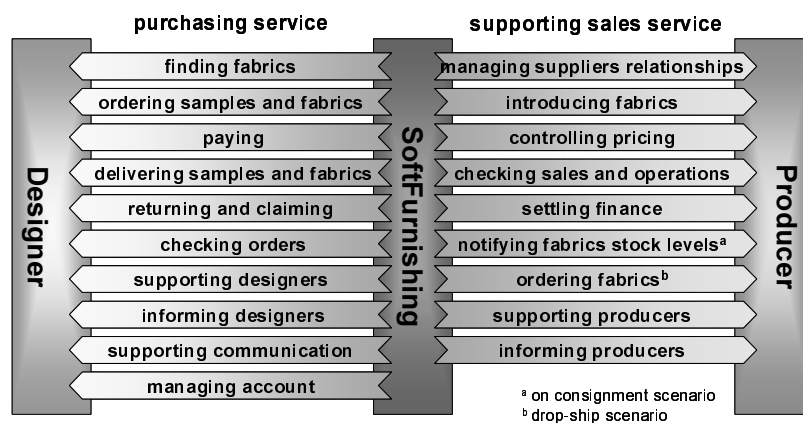


Figure 5: Service elements of SoftFurnishing.

We will elaborate some of the service elements of SoftFurnishing:

- Finding fabrics: This service enables designers to search, view, save, and reserve the fabrics they are interested in.
- Ordering fabrics and samples: This service provides designers with samples and fabrics that SoftFurnishing offers.

- **Paying:** This service supports the financial transactions that take place in the purchase.
- **Delivering fabrics and samples:** This service delivers the ordered fabrics and samples to the delivery address.
- **Checking orders:** This service offers designers the possibility to view their order history and check the order status (tracking & tracing).

The service elements are externally visible and accessible via interactions. For example the *finding fabrics service element* is externally visible and accessible via the following set of interactions:

- A designer can search the collection of fabrics.
- A designer can view a fabric: specification (detailed product and price information), visualization (different views), the fabric in different colors, related fabrics, etc.
- The designer can reserve fabrics for a certain period. Reservations can be converted into an order, extended or cancelled.
- The designer can save and organize fabrics selections in saved item folders. The designer can compare items in a folder (visualization and specification of items gets presented side by side).

For the *supply fabrics service* the producer (service provider) offers to SoftFurnishing (service user) there are two scenarios:

- (1) The on consignment scenario: the inventory of fabrics are on consignment in the warehouse of SoftFurnishing, or
- (2) The drop-ship scenario: the inventory of fabrics are in the warehouse of the producer.

These different scenarios result in different service elements and interactions. The on consignment scenario has the service element "managing stock" (vendor managed inventory at the warehouse of SoftFurnishing). The drop-ship scenario has the service elements informing "inventory levels" and "delivering fabrics". In the drop-ship scenario there are interactions with the producer daily to communicate inventory levels and there are interactions for every order.

3.4.3 Interface

SoftFurnishing uses the web as a channel towards both designers and producers. However, the designers have a access to different functionality than the producers (referred to as the designer browser and producer browser). The design of the user interface of the designer and producer browser is very different. More attention and resources were spend on the designer browser and it is much more attractive. The design of the producer browser is much more focused on the functional aspects.

The fabrics in the delivery channel go via the SoftFurnishing warehouse. The drop-ship producers do not ship directly (SoftFurnishing does not want to provide them any customer data). All orders get packaged and labeled as SoftFurnishing fabrics. This even holds for the American producers who ship directly (the exception to the rule that drop-ship producers do not ship directly). But even these producers use the labels and packaging lists of SoftFurnishing.

From an operational perspective the number of interfaces increases due to the inclusion of the service providers. All arrangements with these service providers are with SoftFurnishing. Also most interactions are with SoftFurnishing. Especially the interface between SoftFurnishing and EU Logistics is very important because it directly affects the order fulfillment processes. The interface between SoftFurnishing and UPS is prescribed by UPS. For example, UPS requires that SoftFurnishing makes use of an EDI connection.

4 Case analysis

Based on the case description we have analyzed the data on strategic and operational design choices and their mutual alignment. Alignment refers to the match or mismatch between design choices from on the strategic and operational levels.

4.1 Strategic design choices

Partial transparency: A first observation is that the business network is partially transparent (Figure 6). Looking at the actors the marketplace is not transparent. Designers do not know of specific producers, and producers do not know of specific designers. Everything is branded as SoftFurnishing. Producers do not get customer data. However, there is transparency when it comes to products and prices. Designers can compare products and prices of the different producers. To conclude, marketplaces do not per definition enhance the transparency of business networks. The SoftFurnishing case shows that marketplaces can introduce transparency in some areas while at the same time introduce non-transparency in other areas. This non-transparency allows SoftFurnishing to stay firmly in control of the business network.

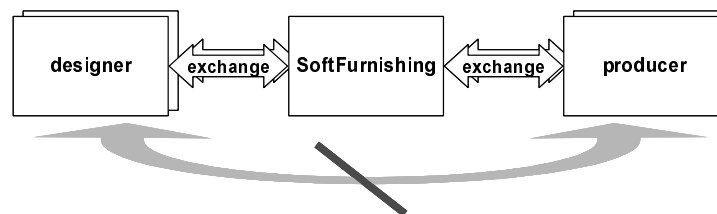


Figure 6: Partial transparency.

Transitivity of value propositions: A second observation is that a number of value propositions of SoftFurnishing to designers or producers are not directly supported by SoftFurnishing, but only by their network partners. As such, the value proposition is handed over by SoftFurnishing. SoftFurnishing controls the transitivity of the value propositions and can leverage them. This transitivity is abstractly represented in Figure 7. For example, the high-end fabrics are offered by the producer to SoftFurnishing, SoftFurnishing offers these high-end fabrics branded as SoftFurnishing to the designers. Another example is tracking & tracing value proposition of SoftFurnishing towards the designers, which is a service offered by UPS. This indicates that the brand “SoftFurnishing” is strong enough to attract producers and service providers that are willing to hand over their individual value propositions. The risks of relying too much on transi-

tivity, sometimes referred to as hollow corporations, is that competitors can easily copy the strategy and that one can easily be bypassed. Moreover, in the case of unique value propositions it can increase the dependency of marketplaces on their producers and service providers.

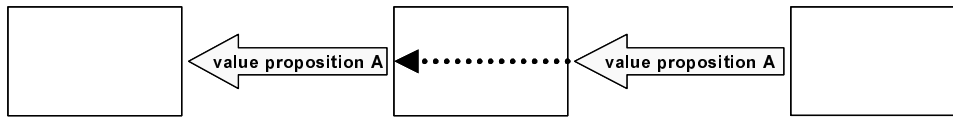


Figure 7: Transitivity.

Inventory-based value propositions: SoftFurnishing takes full control of the inventory and supply chain. This is on the one hand an added value to the producers (they do not have to take care of inventory and order fulfilment activities such as coupage and worldwide delivery), and on the other hand to the designers (available-to-promise and fast, guaranteed delivery). As such, SoftFurnishing is more an innovative logistics concept supported by e-business, than vice versa. This observation contradicts the common electronic business motto “replace inventory by information”. Apparently, logistics can be a strategic factor in e-business instead of just a matter of operational excellence. Intelligent inventory management⁴ constitutes an important value proposition for marketplaces (Figure 8)

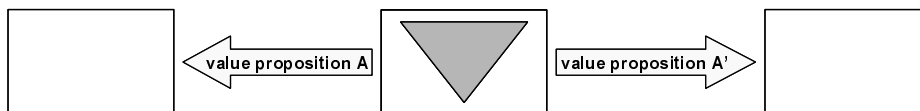


Figure 8: Inventory-based value propositions.

4.2 Operational design choices

Network orchestration: SoftFurnishing has the role of network orchestrator (see also section 3.4.1) SoftFurnishing has the arrangements with all these different actors and takes care that (the steps of) the business processes that are executed at different actors have are geared towards each other. Most interactions are with SoftFurnishing and most information is exchanged with SoftFurnishing. In this way SoftFurnishing stays firmly in control of the business network. The amount of actors, arrangements, activities, and their mutual dependence makes network orchestration a complex activity that requires a substantial effort. This reduces the risk of copying or being bypassed (see discussion on transitivity in section 4.1).

⁴ Interestingly SoftFurnishing has outsourced part of its logistic activities. However, the arrangements are such that service levels are guaranteed. SoftFurnishing stays in full control of its services to the producers and designers (see also network orchestration in section 4.2)

Location of inventory: SoftFurnishing has two scenarios for the supply of fabrics: the on consignment and drop-ship scenario (section 3.4.2). These scenarios lead to different service elements and interaction frequencies (Figure 9). SoftFurnishing prefers the on consignment scenario. With this scenario SoftFurnishing has total control over inventory and order fulfillment and can guarantee the quality of service. However, SoftFurnishing also implements the drop-ship scenario. Some producers do not want to participate in the on consignment scenario and are attractive and powerful enough to get their way (this is the exception). An important implication is that the interface between SoftFurnishing and the producers is designed to accommodate two different supply scenario's.

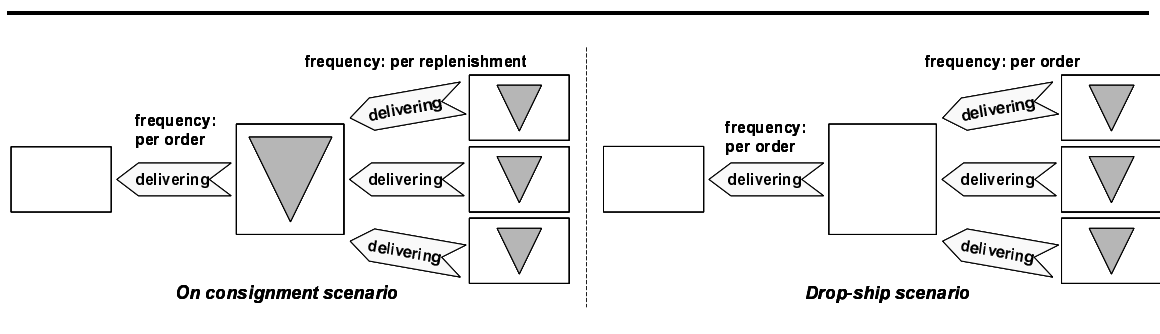


Figure 9: Location of inventory

Multichanneling: SoftFurnishing uses multiple channels. Firstly, the same service element can be accessed via different channels (customer choice). For example, the designer can order fabrics via the website or the order desk (phone or fax). Secondly, a special channel can be used to handle errors and difficult situations of the regular channel (exception handling). For example, via the customer desk channel it is possible to reserve more fabric than via the website. Thirdly, one channel can be followed buy another channel (sequential). For example, an order is placed online and the fabric is delivered by a package service. To conclude, SoftFurnishing explicitly uses a multi-channel approach where virtual and physical channels complement each other.

4.3 Alignment

Alignment refers to the match or mismatch between strategic and operational design choices. Both matches and mismatches are discussed below.

4.3.1 Matches

Non-transparency of actors: An important strategic design choice of SoftFurnishing is that there is no direct contact between the designer and the producer (see also partial transparency in section 4.1). This puts SoftFurnishing in a strategic position and establishes the SoftFurnishing brand. On the operational level we observed that there are indeed no interactions between the designers and producers and that information about the specific designers or producers is not provided by SoftFurnishing. For example, the drop-ship producers do not ship directly (SoftFurnishing does not want to pro-

vide them any customer data). All orders get packaged and labelled as SoftFurnishing fabrics.

Replacing physical item by an electronic service: It is SoftFurnishing's strategy to offer compete on prices. SoftFurnishing can do this by removing structural costs. Besides this they also want to quickly introduce new fabrics. On the operational level we observed that there is the visualization of fabrics (visualization service) and there are interactions for ordering and delivering samples (sample service). The sample service is meant to replace the traditional way of working in which sample books are distributed. These sample books are expensive to produce (costs) and not frequently replaced (new fabrics). The visualization and sample services do not have these disadvantages. The visualization of fabrics is made possible by using special software and a database with images. The placing of a sample order is supported by ICT (the designers can order the samples via the website) and order processing is automated via application integration between the web application and the ERP system of SoftFurnishing. This ERP system is accessed from the sample warehouse where the order fulfilment takes place.

4.3.2 Mismatches

Automated business integration: On the operational level there is an EDI connection between SoftFurnishing and one of the drop-ship producers. This EDI connection was implemented during the pilot project. The other drop-ship producers receive their orders by e-mail and phone. This EDI drop-ship producer has no real-time processing (they batch it) and use manual interventions (they have to read the mailbox and for rare order types retype the message). It is SoftFurnishing's strategy to competes on prices. The EDI connection, however, is not cost-efficient (not enough volume) and does not increase in the service quality (still manual intervention that can lead to errors).

Limited service impact: An important strategic decision of SoftFurnishing is to offer marketing tools towards end-customer. On the operational level we observed that this tool is designed to provide tracking & tracing and information about products and prices to end-customers. It is questionable if these services add much value for the designer. This type of information is more likely to be a dissatisfier if not provided when needed than an order winner for designers.

5 Conclusions

In this paper we explored the role and characteristics of business-to-business interfaces in business networks. We presented a conceptual framework to describe and analyze the SoftFurnishing case. The case analysis focused on strategic and operational design choices and their mutual alignment. The most important findings are summarized below.

We have seen that marketplaces do not per definition increase transparency in value networks. SoftFurnishing deliberately has created some non-transparency, which allows them to firmly keep in control of the business network. A second observation was that a number of value propositions (and services) was directly transferred from suppliers to the customers by SoftFurnishing. This indicates that a marketplace not necessarily has to add value on all inflowing value activities. When a marketplace brand has enough strength prodders and service providers apparently are willing to hand over

their value propositions. Another observation was that logistics and inventory management remain important. SoftFurnishing is more an innovative logistics concept supported by e-business, than vice versa. This observation contradicts the common electronic business motto "replace inventory by information". Finally, we have observed some matches and mismatches between design choices on the strategic and operational level.

6 Limitations and future work

We end this paper by discussing limitations of our research and future work.

Most concepts used to describe the case could easily be related to case information. Often the case information contained similar terms. For the actor concept we focused on the activities, not paying attention to the resource and people concepts. This seemed to work well for the description of the primary activities of SoftFurnishing case. However, some concepts remained troublesome. It is hard to get a grip on the relationship concept. Also the interface concept should be used for the specific purpose it is intended for, it is easily used too broad. Besides working on these concepts the next step will be to make a more explicit operationalisation of the conceptual framework.

The conceptual framework enabled us to describe the case in a structured manner. This has the advantage that analysis can be systematic by looking at apparent matches and mismatches and use this as a basis for identifying design choices. This analysis approach needs better foundations. These foundations may be found in organization and ICT literature about fit and alignment. The case analysis resulted in a number of observations related to design choices. However, a discussion of the design choices is lacking. This can be done by comparing them with what can be found about them in literature and/or get feedback from experts. This is future work and beyond the scope of this paper.

The case study has to be completed discussing the results with and getting feedback from SoftFurnishing. To make it a proper network study there should be a follow-up that would get information of the other network actors, especially the designers and suppliers. Also a follow-up that would examine the second version of SoftFurnishing (broader product range: rugs next to fabrics) and future versions (towards a collaborative platform for designers and suppliers) is worthwhile to find out more about the evolution of the business network and what this means for the interfaces.

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